

WEST Search History

DATE: Wednesday, November 14, 2007

| Hide? | Set Name | Query | Hit Count |
|--------------------------|----------|---|-----------|
| | | <i>DB=USPT,USOC,EPAB,JPAB,DWPI; THES=ASSIGNEE; PLUR=YES; OP=ADJ</i> | |
| <input type="checkbox"/> | L6 | aizunensis | 4 |
| <input type="checkbox"/> | L5 | aizunensis | 4 |
| | | <i>DB=PGPB; THES=ASSIGNEE; PLUR=YES; OP=ADJ</i> | |
| <input type="checkbox"/> | L4 | aizunensis | 8 |
| <input type="checkbox"/> | L3 | aizunesis | 0 |
| | | <i>DB=USPT,USOC,EPAB,JPAB,DWPI; THES=ASSIGNEE; PLUR=YES; OP=ADJ</i> | |
| <input type="checkbox"/> | L2 | aizunesis | 0 |
| <input type="checkbox"/> | L1 | aizunesis and polyketide and (synthase or synthetase) | 0 |

END OF SEARCH HISTORY

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Search Results - Record(s) 1 through 4 of 4 returned.

☐ 1. Document ID: US 7257562 B2

L6: Entry 1 of 4

File: USPT

Aug 14, 2007

US-PAT-NO: 7257562

DOCUMENT-IDENTIFIER: US 7257562 B2

TITLE: High throughput method for discovery of gene clusters

DATE-ISSUED: August 14, 2007

PRIOR-PUBLICATION:

DOC-ID

DATE

US 20030138810 A1

July 24, 2003

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|----------------------|---------------|-------|----------|---------|
| Farnet; Chris M. | Montreal | | | CA |
| Staffa; Alfredo | Saint-Laurent | | | CA |
| Zazopoulos; Emmanuel | Montreal | | | CA |

US-CL-CURRENT: 706/13; 435/4, 702/19

ABSTRACT:

A method for identifying gene cluster is disclosed. The method may be used for identifying gene clusters involved in the biosynthesis of natural products. A small insert library of DNA fragments of genomic DNA and a large insert library of DNA fragments of genomic DNA are prepared. Fragments in the small insert library are sequenced and compared by homology comparison under computer control to a database containing genes, gene fragments or proteins known to be involved in the biosynthesis of microbial natural products. Fragments having similar structure to genes, gene fragments or proteins known to be involved in the biosynthesis of naturally occurring metabolites are used as probes to screen the large insert library of genomic DNA to detect gene clusters involved in the biosynthesis of microbial natural products.

19 Claims, 5 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 5

| | | | | | | | | | | | |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|--------|------|---------|
| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Claims | KMOC | Draw De |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|--------|------|---------|

☐ 2. Document ID: US 3890199 A

L6: Entry 2 of 4

File: USPT

Jun 17, 1975

US-PAT-NO: 3890199

DOCUMENT-IDENTIFIER: US 3890199 A

TITLE: Process for the production of bicyclomycin

DATE-ISSUED: June 17, 1975

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|---------------------|----------|-------|----------|---------|
| Miyamura; Sadao | Niigata | | | JA |
| Ogasawara; Nagahiro | Niigata | | | JA |
| Otsuka; Hitoshi | Kurosaki | | | JA |

US-CL-CURRENT: 435/119; 435/886

ABSTRACT:

Antibiotic No. 5879 which is a water-soluble and weakly basic antibiotic effective against gram-negative bacteria is produced by the cultivation of a new microorganism, *Streptomyces aizunensis* nov. sp. Antibiotic No. 5879 is the same substance as the known antibiotic WS-4545 which is disclosed in German "DTOS" (Offenlegungsschrift) No. 2,150,593.

4 Claims, 1 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 1

| | | | | | | | | | | | |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|--------|------|----------|
| Full | Title | Citation | Front | Review | Classification | Date | Reference | Exemplary | Claims | KMIC | Draw. De |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|--------|------|----------|

☐ 3. Document ID: WO 2004065401 A1

L6: Entry 3 of 4

File: EPAB

Aug 5, 2004

PUB-NO: WO2004065401A1

DOCUMENT-IDENTIFIER: WO 2004065401 A1

TITLE: POLYENE POLYKETIDES, PROCESSES FOR THEIR PRODUCTION AND THEIR USE AS A PHARMACEUTICAL

PUBN-DATE: August 5, 2004

INVENTOR-INFORMATION:

| NAME | COUNTRY |
|----------------------|---------|
| BACHMANN, BRIAN O | US |
| MCALPINE, JAMES B | CA |
| ZAZOPOULOS, EMMANUEL | CA |
| FARNET, CHRIS M | CA |

INT-CL (IPC): C07H 15/203; C07H 15/26; C07H 15/10; C07C 229/30; C07C 237/16;
C12P 19/44; A61K 31/7032; A61P 31/00
EUR-CL (EPC): C07C215/24; C07C279/22, C07C305/14 , C12P007/42 , C12P011/00 ,
C12P013/00 , C12P019/44 , C12R001/465

ABSTRACT:

CHG DATE=20040817 STATUS=O>This invention relates to a new class of polyene polyketides, their pharmaceutically acceptable salts and derivatives, and to methods for obtaining the compounds. One method of obtaining these compounds is by cultivation of novel strains of *Streptomyces aizunensis*; another method involves expression of biosynthetic pathway genes in transformed host cells. The present invention further relates to the novel strains of *Streptomyces aizunensis* used to produce these compounds, to the use of these compounds and their pharmaceutically acceptable salts and derivatives as pharmaceuticals, in particular to their use as inhibitors of fungal cell growth and cancer cell growth. The invention also relates to pharmaceutical compositions comprising these novel polyketides or a pharmaceutically acceptable salts or derivatives thereof. Finally, the invention relates to novel polynucleotide sequences and their encoded proteins, which are involved in the biosynthesis of these novel polyketides.

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Abstract | Claims | Summary | Drawings |
|------|-------|----------|-------|--------|----------------|------|-----------|----------|--------|---------|----------|
|------|-------|----------|-------|--------|----------------|------|-----------|----------|--------|---------|----------|

☐ 4. Document ID: NL 7310943 A, JP 49035589 A, US 3890199 A, CA 989340 A, CH 581699 A, JP 80001795 B

L6: Entry 4 of 4

File: DWPI

Feb 12, 1974

DERWENT-ACC-NO: 1974-16832V
DERWENT-WEEK: 200402
COPYRIGHT 2007 DERWENT INFORMATION LTD

TITLE: Antibiotic 5879 (bicyclomycin) - obtained by incubation of *streptomyces aizunensis* nov sp

PRIORITY-DATA: 1972JP-0079806 (August 8, 1972)

PATENT-FAMILY:

| PUB-NO | PUB-DATE | LANGUAGE | PAGES | MAIN-IPC |
|---------------|-------------------|----------|-------|----------|
| NL 7310943 A | February 12, 1974 | | 000 | |
| JP 49035589 A | April 2, 1974 | | 000 | |
| US 3890199 A | June 17, 1975 | | 000 | |
| CA 989340 A | May 18, 1976 | | 000 | |
| CH 581699 A | November 15, 1976 | | 000 | |
| JP 80001795 B | January 17, 1980 | | 000 | |

INT-CL (IPC): A61K 21/02; C07D 99/04; C12D 9/14; C12P 1/06

ABSTRACTED-PUB-NO: NL 7310943A

BASIC-ABSTRACT:

Title antibiotics is obtd. by incubating *S.aizunensis* No. 5879 (FERM-P No. 1501)

for 30-100 hrs., at 30 degrees C aerobically, isolated from the mycelium by extn., and from filtered broth and extracts by cation exchange chromatography, and purified by chromatography, solvent extn. and/or crystaln.

| | | | | | | | | | | | | | |
|------|-------|----------|-------|--------|----------------|------|-----------|--|--|--|--------|-----|---------|
| Full | Title | Citation | Front | Review | Classification | Date | Reference | | | | Claims | KMC | Draw De |
|------|-------|----------|-------|--------|----------------|------|-----------|--|--|--|--------|-----|---------|

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|------------|---------------------|-----------|----------|-----------|---------------|
| Clear | Generate Collection | Print | Fwd Refs | Bkwd Refs | Generate OACS |
| Terms | | Documents | | | |
| aizunensis | | 4 | | | |

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Search Results - Record(s) 1 through 8 of 8 returned.

☐ 1. Document ID: US 20070061084 A1

L4: Entry 1 of 8

File: PGPB

Mar 15, 2007

PGPUB-DOCUMENT-NUMBER: 20070061084

PGPUB-FILING-TYPE:

DOCUMENT-IDENTIFIER: US 20070061084 A1

TITLE: Method, system, and knowledge repository for identifying a secondary metabolite from a microorganism

PUBLICATION-DATE: March 15, 2007

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY |
|----------------------|---------------|-------|---------|
| Farnet; Chris M. | Montreal | TN | CA |
| McAlpine; James B. | Montreal | | CA |
| Bachmann; Brian O. | Nashville | | US |
| Staffa; Alfredo | Saint-Laurent | | CA |
| Zazopoulos; Emmanuel | Montreal | | CA |
| Zhao; Zhizi | Montreal | | CA |
| Wong; Sai Man | Saint-Laurent | | CA |
| Desjardins; Nicolas | Pointe-Claire | | CA |

US-CL-CURRENT: 702/19; 435/4, 435/6, 702/20

| | | | | | | | | | | | | |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|------------|
| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. Data |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|------------|

☐ 2. Document ID: US 20050187167 A1

L4: Entry 2 of 8

File: PGPB

Aug 25, 2005

PGPUB-DOCUMENT-NUMBER: 20050187167

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20050187167 A1

TITLE: Polyene polyketides, processes for their production and their use as a pharmaceutical

PUBLICATION-DATE: August 25, 2005

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY |
|----------------------|-----------|-------|---------|
| Bachmann, Brian O. | Nashville | TN | US |
| McAlpine, James B. | Westmount | | CA |
| Zazopoulos, Emmanuel | Montreal | | CA |
| Farnet, Chris M. | Outremont | | CA |

US-CL-CURRENT: 514/25; 514/463, 536/18.7

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. De |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|----------|
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|----------|

☐ 3. Document ID: US 20050176653 A1

L4: Entry 3 of 8

File: PGPB

Aug 11, 2005

PGPUB-DOCUMENT-NUMBER: 20050176653
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20050176653 A1

TITLE: Polyene polyketides and methods of production

PUBLICATION-DATE: August 11, 2005

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY |
|----------------------|-----------|-------|---------|
| McAlpine, James B. | Montreal | | CA |
| Farnet, Chris M. | Outremont | | CA |
| Zazopoulos, Emmanuel | Montreal | | CA |
| Sorensen, Dan | Montreal | | CA |

US-CL-CURRENT: 514/25; 536/17.4, 536/18.7.

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. De |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|----------|
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|----------|

☐ 4. Document ID: US 20040033581 A1

L4: Entry 4 of 8

File: PGPB

Feb 19, 2004

PGPUB-DOCUMENT-NUMBER: 20040033581
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040033581 A1

TITLE: Dual condensation/epimerization domain in non-ribosomal peptide synthetase systems

PUBLICATION-DATE: February 19, 2004

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY |
|------------------|---------------|-------|---------|
| Farnet, Chris M. | Outremont | | CA |
| Staffa, Alfredo | Saint Laurent | | CA |

US-CL-CURRENT: [435/226](#); [435/320.1](#), [435/325](#), [435/6](#), [435/69.1](#), [536/23.2](#)

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. De |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|----------|
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|----------|

☐ 5. Document ID: US 20030211567 A1

L4: Entry 5 of 8

File: PGPB

Nov 13, 2003

PGPUB-DOCUMENT-NUMBER: 20030211567

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030211567 A1

TITLE: Compositions, methods and systems for discovery of lipopeptides

PUBLICATION-DATE: November 13, 2003

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY |
|----------------------|---------------|-------|---------|
| Farnet, Chris M. | Outremont | | CA |
| Staffa, Alfredo | Saint-Laurent | | CA |
| Zazopoulos, Emmanuel | Montreal | | CA |

US-CL-CURRENT: [435/68.1](#); [435/193](#), [435/252.3](#), [435/320.1](#), [435/69.1](#), [536/23.2](#)

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. De |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|----------|
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|----------|

☐ 6. Document ID: US 20030180766 A1

L4: Entry 6 of 8

File: PGPB

Sep 25, 2003

PGPUB-DOCUMENT-NUMBER: 20030180766

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030180766 A1

TITLE: Method, system and knowledge repository for identifying a secondary metabolite from a microorganism

PUBLICATION-DATE: September 25, 2003

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY |
|----------------------|---------------|-------|---------|
| Farnet, Chris M. | Outremont | | CA |
| Staffa, Alfredo | Saint-Laurent | | CA |
| Bachmann, Brian O. | Westmount | | CA |
| McAlpine, James B. | Westmount | | CA |
| Zazopoulos, Emmanuel | Montreal | | CA |
| Zhao, Zhizi | Pierrefonds | | CA |
| Wong, Sai Man | Saint-Laurent | | CA |
| Desjardins, Nicolas | Pointe-Claire | | CA |

US-CL-CURRENT: 435/6; 435/7.32, 702/19

| | | | | | | | | | | | | |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|-----|----------|
| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KMC | Draw. De |
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☐ 7. Document ID: US 20030138810 A1

L4: Entry 7 of 8

File: PGPB

Jul 24, 2003

PGPUB-DOCUMENT-NUMBER: 20030138810

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030138810 A1

TITLE: High throughput method for discovery of gene clusters

PUBLICATION-DATE: July 24, 2003

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY |
|----------------------|---------------|-------|---------|
| Farnet, Chris M. | Outremont | | CA |
| Staffa, Alfredo | Saint-Laurent | | CA |
| Zazopoulos, Emmanuel | Montreal | | CA |

US-CL-CURRENT: 435/6; 702/20

| | | | | | | | | | | | | |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|-----|----------|
| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KMC | Draw. De |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|-----|----------|

☐ 8. Document ID: US 20030054353 A1

L4: Entry 8 of 8

File: PGPB

Mar 20, 2003

PGPUB-DOCUMENT-NUMBER: 20030054353

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030054353 A1

TITLE: High throughput method for discovery of gene clusters

PUBLICATION-DATE: March 20, 2003

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY |
|----------------------|------------|-------|---------|
| Farnet, Chris M. | Outremont | | CA |
| Zazopoulos, Emmanuel | Outremont | | CA |
| Staffa, Alfredo | St-Leonard | | CA |

US-CL-CURRENT: 435/6; 702/20

| | | | | | | | | | | | | |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|-----|----------|
| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KMC | Draw. De |
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STN Search

10/760,494

FILE 'HOME' ENTERED AT 13:51:28 ON 14 NOV 2007

=> file .nash

=> s aizunensis

L1 2 FILE MEDLINE
L2 12 FILE CAPLUS
L3 1 FILE SCISEARCH
L4 1 FILE LIFESCI
L5 1 FILE BIOSIS
L6 2 FILE EMBASE

TOTAL FOR ALL FILES

L7 19 AIZUNENSIS

=> dup rem l7

PROCESSING COMPLETED FOR L7

L8 13 DUP REM L7 (6 DUPLICATES REMOVED)

=> d ibib abs

L8 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2007:593435 CAPLUS Full-text

DOCUMENT NUMBER: 146:516103

TITLE: Polynucleotides and polypeptides useful for improved
agronomic traits in transgenic plantsINVENTOR(S): Abad, Mark Scott; Chelf, Frances; Coffin, Marie A.;
Darveaux, Bettina; Goldman, Barry S.; McDonald, Maria;
Rich, Ronald; Slaten, Erin; Wilkins, Shanita

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 81pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|------------|
| US 2007124833 | A1 | 20070531 | US 2006-431855 | 20060510 |
| PRIORITY APPLN. INFO.: | | | US 2005-679917P | P 20050510 |
| | | | US 2005-723596P | P 20051004 |

AB Transgenic seed for crops with improved traits are provided by trait-improving recombinant DNA in the nucleus of cells of the seed where plants grown from such transgenic seed exhibit one or more improved traits as compared to a control plant. To identify recombinant DNA that confers improved traits to plants, *Arabidopsis thaliana* was transformed with a candidate recombinant DNA construct and screened for an improved trait. Desirable agronomic traits include improved water use efficiency, cold tolerance, increased yield, improved nitrogen use efficiency, increased seed protein and oil content, heat tolerance, salt resistance, shade tolerance, herbicide resistance, and resistance to viral or fungal infections. Of particular interest are transgenic plants that have increased yield. Four hundred twenty-five recombinant nucleic acids and gene products were identified. BLAST searching identified 32,784 homologs to the 425 proteins. The present invention also provides recombinant DNA mols. for expression of a protein, and recombinant DNA mols. for suppression of a protein.

=> d 2-13 ibib abs

L8 ANSWER 2 OF 13 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 2006:480522 BIOSIS Full-text

DOCUMENT NUMBER: PREV200600472642

TITLE: New drugs from marine microbes: the tide is turning.

AUTHOR(S): Newman, David J. [Reprint Author]; Hill, Russell T.

CORPORATE SOURCE: NCI Frederick, Nat Prod Branch, Dev Therapeut Program, POB
B, Ft Detrick, MD 21702 USA
dn22a@nih.gov; hillr@umbi.umd.eduSOURCE: Journal of Industrial Microbiology & Biotechnology, (JUL
2006) Vol. 33, No. 7, pp. 539-544.

ISSN: 1367-5435.

DOCUMENT TYPE: Article
General Review; (Literature Review)

LANGUAGE: English

ENTRY DATE: Entered STN: 20 Sep 2006

Last Updated on STN: 20 Sep 2006

AB This is a mini-review demonstrating that investigation of the genomics of marine microbes from all three domains has the potential to revolutionize the search for secondary metabolites originally thought to be the product of marine invertebrates. The basis for the review was a symposium at the 2005 Annual Meeting of the SIM covering some aspects of the potential for marine microbes to be the primary producers of such metabolites. The work reported at that symposium has been integrated into a fuller discussion of current published literature on the subject with examples drawn from bacteria, cyanophytes and fungi.

L8 ANSWER 3 OF 13 MEDLINE on STN DUPLICATE 1
ACCESSION NUMBER: 2005211742 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 15844935
TITLE: Microbial genomics as a guide to drug discovery and structural elucidation: ECO-02301, a novel antifungal agent, as an example.
AUTHOR: McAlpine James B; Bachmann Brian O; Piraez Mahmood; Tremblay Steve; Alarco Anne-Marie; Zazopoulos Emmanuel; Farnet Chris M
CORPORATE SOURCE: Ecopia BioSciences, Inc., 7290 Frederick Banting Street, Montreal, Quebec, H4S 2A1, Canada.. mcalpine@ecopiabio.com
SOURCE: Journal of natural products, (2005 Apr) Vol. 68, No. 4, pp. 493-6.
Journal code: 7906882. ISSN: 0163-3864.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200506
ENTRY DATE: Entered STN: 23 Apr 2005
Last Updated on STN: 16 Jun 2005
Entered Medline: 15 Jun 2005

AB Analysis of the genome of Streptomyces aizunensis NRRL B-11277 indicated its potential to produce a compound of novel and highly predictable structure. The structure was predicted with sufficient accuracy to allow straightforward detection of the specific metabolite in HPLC profiles of fermentation extracts and hence to guide the isolation. The spectroscopic work was reduced to a confirmation of structure rather than a first principle determination. The compound, ECO-02301 (1), demonstrated potent antifungal activity. This work exemplifies not only the discovery of novel antibiotics from well-characterized organisms but also the utility of genomics as a further tool, complementary to spectroscopy, to enable rapid determination of complex structures.

L8 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:366398 CAPLUS Full-text
DOCUMENT NUMBER: 145:283680
TITLE: Improving drug discovery from microorganisms
AUTHOR(S): Farnet, Chris M.; Zazopoulos, Emmanuel
CORPORATE SOURCE: Ecopia BioSciences Inc., Montreal, QC, Can.
SOURCE: Natural Products (2005), 95-106. Editor(s): Zhang, Lixin; Demain, Arnold L. Humana Press Inc.: Totowa, N. J.
CODEN: 69HZ22; ISBN: 1-58829-383-1
DOCUMENT TYPE: Conference; General Review
LANGUAGE: English

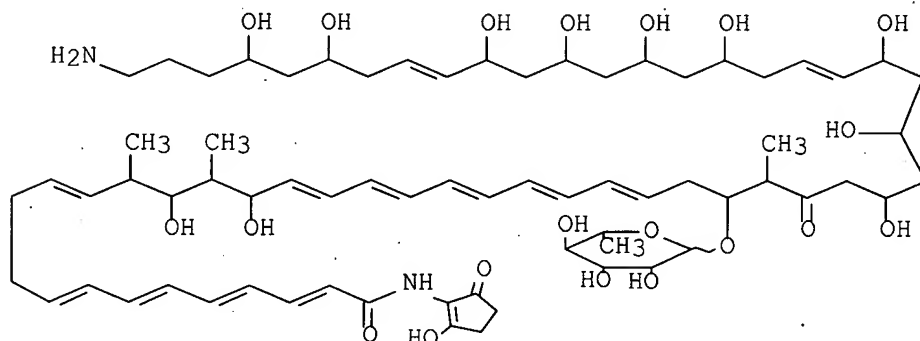
AB A review. Microorganisms remain unrivalled in their ability to produce bioactive small mols. for drug development. However, the core technologies used to discover microbial natural products have not evolved significantly over the past several decades, resulting in a shortage of new drug leads. Advances in DNA-sequencing and bioinformatics technologies now make it possible to rapidly identify the clusters of genes that encode bioactive compds. and to make computer predictions of chemical structure based on gene sequence information. These structure predictions can be used to identify new chemical entities and provide important physicochem. "handles" that guide compound purification and structure confirmation. Industrialization of this process provides a model for improving the efficiency of natural-product discovery. The application of advanced genomics and bioinformatics technologies is now poised to revolutionize natural-product discovery and lead a renaissance of interest in microorganisms as a source of bioactive compds. for drug development.
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:633940 CAPLUS Full-text
DOCUMENT NUMBER: 141:167732
TITLE: Polyene polyketides, processes for their production using polyketide synthetase genes and enzymes from Streptomyces aizunensis, and their use as fungicidal and antitumor pharmaceutical
INVENTOR(S): Bachmann, Brian O.; McAlpine, James B.; Zazopoulos,

PATENT ASSIGNEE(S): Emmanuel; Farnet, Chris M.
 SOURCE: Ecopia Biosciences Inc., Can.
 PCT Int. Appl., 554 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|------------|
| WO 2004065401 | A1 | 20040805 | WO 2004-CA68 | 20040121 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ | | | | |
| CA 2453071 | A1 | 20040403 | CA 2004-2453071 | 20040121 |
| CA 2453080 | A1 | 20040403 | CA 2004-2453080 | 20040121 |
| CA 2453080 | C | 20060221 | | |
| US 2005187167 | A1 | 20050825 | US 2004-760493 | 20040121 |
| EP 1585752 | A1 | 20051019 | EP 2004-703730 | 20040121 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | | |
| JP 2007525148 | T | 20070906 | JP 2006-500436 | 20040121 |
| PRIORITY APPLN. INFO.: | | | | |
| | | | US 2003-441123P | P 20030121 |
| | | | US 2003-469810P | P 20030513 |
| | | | US 2003-491516P | P 20030801 |
| | | | US 2003-494568P | P 20030813 |
| | | | WO 2004-CA68 | W 20040121 |

OTHER SOURCE(S): MARPAT 141:167732
 GI



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AB This invention relates to a new class of polyene polyketides, their pharmaceutically acceptable salts and derivs., and to methods for obtaining the compds. One method of obtaining these compds. is by cultivation of novel strains of *Streptomyces aizunensis* shown to produce polyketide I; another method involves expression of biosynthetic pathway genes in transformed host cells. The present invention further relates to the novel strains of *Streptomyces aizunensis* used to produce these compds., to the use of these compds. and their pharmaceutically acceptable salts and derivs. as pharmaceuticals, in particular to their use as inhibitors of fungal cell growth and cancer cell growth. I has in vivo *Candida albicans* antifungal activity similar to a dose of 0.25 mg/kg of fungizone and increases 4-fold the median survival time of infected mice. I is also effective against all the human tumor cell lines that have been assayed in the NCI screening panel, suggesting a broad anticancer activity against several types of human cancer; the GI50 calculated for all cell lines was lower than $10 + 10^{-6}$ M, and in some cases reached the nanomolar or picomolar level. The invention also relates to pharmaceutical compns. comprising these novel polyketides or a pharmaceutically acceptable salts or derivs. thereof. Finally, the invention relates to novel polynucleotide sequences and their encoded proteins, which are involved in the biosynthesis of these novel polyketides. The biosynthetic locus for production of I in *S. aizunensis* strain NRRL B-11277 spans approx. 176,000 bp of DNA and encodes 38 proteins.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2004:142701 CAPLUS Full-text

DOCUMENT NUMBER: 140:195370
 TITLE: Cloning and sequences of dual
 condensation/epimerization domain in Actinomycetes
 non-ribosomal peptide synthetase systems and use for
 modification of stereochemistry of synthesized
 peptides
 INVENTOR(S): Farnet, Chris M.; Staffa, Alfredo
 PATENT ASSIGNEE(S): Can.
 SOURCE: U.S. Pat. Appl. Publ., 179 pp., Cont.-in-part of U.S.
 Ser. No. 976,059.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 12
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|-------------|
| US 2004033581 | A1 | 20040219 | US 2003-417700 | 20030417 |
| US 2002164747 | A1 | 20021107 | US 2001-976059 | 20011015 |
| US 7078185 | B2 | 20060718 | | |
| JP 2006180882 | A | 20060713 | JP 2006-16985 | 20060125 |
| PRIORITY APPLN. INFO.: | | | US 2000-239924P | P 20001013 |
| | | | US 2001-976059 | A2 20011015 |
| | | | US 2001-283296P | P 20010412 |
| | | | US 2001-910813 | A 20010724 |
| | | | JP 2002-534522 | A3 20011015 |

AB The present invention relates to domains of non-ribosomal peptide synthetases (NRPSs) that exhibit dual condensation and epimerization activities. Identification of a consensus dual condensation/epimerization domain in known NRPSs and search sequence databases for homologs allowed the identification of NRPSs modules in several Actinomycetes species. The nucleotide sequences and the encoded amino acid sequences of 69 condensation/epimerization domains are disclosed. The "dual condensation/epimerization NRPS domains" of the present invention allow for the incorporation of non-proteinogenic substrates, such as D-amino acids, into peptide products. Thus exchange of a dual condensation/epimerization domain and a regular condensation domain in the ramoplanin NRPS system of Actinoplanes ATCC 33076 alters the stereochem. of ramoplanin at two different amino acid components. The ramoplanin NRPS domain is also used to modify the stereochem. of the complestatin mol. at a specific amino acid component. Thus, these dual condensation/epimerization NRPS domains may further be used to modify the stereochem. of synthesized peptides at selected amino acid sites.

L8 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2003:856072 CAPLUS Full-text
 DOCUMENT NUMBER: 139:347486
 TITLE: Dual condensation/epimerization domain in
 non-ribosomal peptide synthetase systems
 INVENTOR(S): Farnet, Chris M.; Staffa, Alfredo
 PATENT ASSIGNEE(S): Ecopia Biosciences Inc., Can.
 SOURCE: PCT Int. Appl., 246 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--|----------|-----------------|------------|
| WO 2003089641 | A2 | 20031030 | WO 2003-CA575 | 20030417 |
| WO 2003089641 | A3 | 20040610 | | |
| W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | |
| RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |
| CA 2430580 | A1 | 20030904 | CA 2003-2430580 | 20030417 |
| AU 2003222690 | A1 | 20031103 | AU 2003-222690 | 20030417 |
| PRIORITY APPLN. INFO.: | | | US 2002-372790P | P 20020417 |
| | | | WO 2003-CA575 | W 20030417 |

AB The present invention relates to domains of non-ribosomal peptide synthetases (NRPSs) that exhibit dual condensation and epimerization activities. Identification of a consensus dual condensation/epimerization domain in known NRPSs and search sequence databases for homologs allowed the identification of NRPSs modules in several Actinomycetes species. The 'dual condensation/epimerization NRPS domains' of the present invention allow for the incorporation of non-proteinogenic substrates, such as D-amino acids, into peptide products. Thus exchange of a dual condensation/epimerization domain and a regular condensation domain in the ramoplanin NRPS system of Actinoplanes ATCC 33076 alters the stereochem. of ramoplanin at two different amino acid components. The ramoplanin NRPS domain is also used to modify the stereochem. of the complestatin mol. at a specific amino acid component. Thus, these dual condensation/epimerization NRPS domains may be used to modify the stereochem. of synthesized peptides at selected amino acid sites.

L8 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:591366 CAPLUS Full-text
DOCUMENT NUMBER: 139:114135
TITLE: Method, system and knowledge repository for identifying a secondary metabolite from a microorganism
INVENTOR(S): Farnet, Chris M.; Mcalpine, James B.; Bachmann, Brian O.; Zazopoulos, Emmanuel; Staffa, Alfredo; Zhao, Zhizi; Wong, Sai Man; Desjardins, Nicolas
PATENT ASSIGNEE(S): Ecopia Biosciences Inc., Can.
SOURCE: PCT Int. Appl., 96 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--|----------|-----------------|------------|
| WO 2003062458 | A2 | 20030731 | WO 2003-CA83 | 20030124 |
| WO 2003062458 | A3 | 20031120 | | |
| W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW | | | |
| RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |
| CA 2414570 | A1 | 20030403 | CA 2003-2414570 | 20030124 |
| EP 1470241 | A2 | 20041027 | EP 2003-731645 | 20030124 |
| R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, HU | | | |
| JP 2005514959 | T | 20050526 | JP 2003-562325 | 20030124 |
| PRIORITY APPLN. INFO.: | | | US 2002-350369P | P 20020124 |
| | | | US 2002-398795P | P 20020729 |
| | | | US 2002-412580P | P 20020923 |
| | | | WO 2003-CA83 | W 20030124 |

AB The invention relates to a method and system for identifying a secondary metabolite synthesized by a target gene cluster within a microorganism. A putative or confirmed function is attributed to a gene within the gene cluster, and an extract from the microorganism is obtained which is suspected to contain the secondary metabolite synthesized by the gene cluster. The extract is then assessed for chemical, phys. or biol. properties, and the metabolite is identified and optionally isolated. Further, the invention provides a knowledge repository in which gene cluster information is linked to secondary metabolite production data. The invention further relates to a graphical user interface for accessing the knowledge repository, and a memory for storing data, having a data structure that is stored in the memory.

L8 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:571150 CAPLUS Full-text
DOCUMENT NUMBER: 139:129161
TITLE: Protein and nucleic acid sequences and methods for discovery of lipopeptides
INVENTOR(S): Farnet, Chris M.; Staffa, Alfredo; Zazopoulos, Emmanuel
PATENT ASSIGNEE(S): Ecopia Biosciences Inc., Can.; Farnet, Chris M
SOURCE: PCT Int. Appl., 148 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 12
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--|----------|-----------------|-------------|
| WO 2003060128 | A2 | 20030724 | WO 2002-CA2022 | 20021224 |
| WO 2003060128 | A3 | 20040610 | | |
| W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW | | | |
| RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |
| CA 2412226 | A1 | 20030622 | CA 2002-2412226 | 20021224 |
| CA 2412627 | A1 | 20030626 | CA 2002-2412627 | 20021224 |
| CA 2450691 | A1 | 20030626 | CA 2002-2450691 | 20021224 |
| AU 2002351637 | A1 | 20030730 | AU 2002-351637 | 20021224 |
| EP 1461434 | A2 | 20040929 | EP 2002-787310 | 20021224 |
| R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK | | | |
| JP 2005514067 | T | 20050519 | JP 2003-560212 | 20021224 |
| PRIORITY APPLN. INFO.: | | | US 2001-342133P | P 20011226 |
| | | | US 2002-372789P | P 20020417 |
| | | | CA 2002-2412627 | A3 20021224 |
| | | | WO 2002-CA2022 | W 20021224 |

AB The invention relates to isolated polypeptides involved in lipopeptide biosynthesis and polynucleotides encoding such polypeptides. In particular, the isolated polypeptide may be an acyl-specific C-domain, an adenylating enzyme, or an acyl carrier. The invention also relates to methods for detecting a polypeptide involved in lipopeptide biosynthesis or a polynucleotide encoding such a polypeptide, as well as relevant useful computer readable medium and computer systems.

L8 ANSWER 10 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:892357 CAPLUS Full-text
DOCUMENT NUMBER: 139:359958
TITLE: Genes and enzymic systems for lipopeptide biosynthesis in Actinoplanes and Streptomyces species
INVENTOR(S): Farnet, Chris M.; Staffa, Alfredo; Zazopoulos, Emmanuel
PATENT ASSIGNEE(S): Ecopia Biosciences, Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 94 pp., Cont.-in-part of U.S. Ser. No. 232,370.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 12
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|-------------|
| US 2003211567 | A1 | 20031113 | US 2002-329027 | 20021224 |
| US 2003054353 | A1 | 20030320 | US 2001-910813 | 20010724 |
| US 2002164747 | A1 | 20021107 | US 2001-976059 | 20011015 |
| US 7078185 | B2 | 20060718 | | |
| US 2003138810 | A1 | 20030724 | US 2002-232370 | 20020903 |
| US 7257562 | B2 | 20070814 | | |
| CA 2450691 | A1 | 20030626 | CA 2002-2450691 | 20021224 |
| JP 2006180882 | A | 20060713 | JP 2006-16985 | 20060125 |
| PRIORITY APPLN. INFO.: | | | US 2001-910813 | A2 20010724 |
| | | | US 2001-976059 | A2 20011015 |
| | | | US 2001-342133P | P 20011226 |
| | | | US 2002-372789P | P 20020417 |
| | | | US 2002-232370 | A2 20020903 |
| | | | US 2000-239924P | P 20001013 |
| | | | US 2001-283296P | P 20010412 |
| | | | US 2001-286346P | P 20010426 |
| | | | US 2001-291959P | P 20010521 |
| | | | US 2001-296744P | P 20010611 |
| | | | US 2001-307629P | P 20010726 |

| | |
|-----------------|-------------|
| JP 2002-534522 | A3 20011015 |
| US 2001-334604P | P 20011203 |
| US 2002-132134 | A2 20020426 |
| US 2002-152886 | A2 20020521 |
| US 2002-166087 | A2 20020611 |
| US 2002-205032 | A2 20020726 |
| CA 2002-2412627 | A3 20021224 |

AB The invention relates to isolated polypeptides involved in lipopeptide biosynthesis and polynucleotides encoding such polypeptides. In particular, the isolated polypeptide may be an acyl-specific C-domain, an adenylating enzyme, or an acyl-carrier protein. Specific gene loci are provided for ramoplanin biosynthesis in *Actinoplanes* ATCC 33079, A21978C biosynthesis in *Streptomyces roseosporus* NRRL 11379, A54145 biosynthesis in *S. fradiae* ATCC 18158, calcium-dependent antibiotic biosynthesis in *S. coelicolor* A3(2), and lipopeptide natural product biosyntheses in *S. ghanaensis* NRRL B-12104, *S. refuineus* NRRL 3143, *S. aizunensis* NRRL B-11277, *Actinoplanes nipponensis* FD 24834/ATCC 31145, and a *Streptomyces* sp. The invention also relates to methods for detecting a polypeptide involved in lipopeptide biosynthesis or a polynucleotide encoding such a polypeptide, as well as relevant useful computer readable medium and computer systems.

L8 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1974:489801 CAPLUS Full-text

DOCUMENT NUMBER: 81:89801

ORIGINAL REFERENCE NO.: 81:14247a,14250a

TITLE: Production of antibiotic Number 5879 by *Streptomyces aizunensis*

INVENTOR(S): Miyamura, Sadao; Ogasawara, Nagahiro; Otsuka, Hitoshi

PATENT ASSIGNEE(S): Fujisawa Pharmaceutical Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------|------|----------|-----------------|------------|
| JP 49035589 | A | 19740402 | JP 1972-79806 | 19720808 |
| JP 55001795 | B | 19800117 | | |
| DK 132962 | B | 19760301 | DK 1973-4330 | 19730807 |
| CA 989340 | A1 | 19760518 | CA 1973-178149 | 19730807 |
| CH 581699 | A5 | 19761115 | CH 1973-11420 | 19730807 |
| NL 7310943 | A | 19740212 | NL 1973-10943 | 19730808 |
| US 3890199 | A | 19750617 | US 1973-386852 | 19730808 |
| | | | JP 1972-79806 | A 19720808 |

PRIORITY APPLN. INFO.:

AB Antibiotic, Number 5879, was produced by *Streptomyces aizunensis* (FERM-P 1501), a new isolate. The substance was identical to WS-4545 in elemental anal. (C12H18N2O7), m.p., mol. weight, sp. rotation, ir absorption spectrum, and chemical reactions. *S. aizunensis* was aerobically cultured in a medium (pH 7.0) containing glucose 1, starch 1.5, soybean powder 2, KH2PO4 0.2, MgSO4 4 0.05, and MnSO4 0.0001% at 30° for 65 hr. The culture filtrate was filtered at pH 2 and the pH adjusted to 8-9 with the addition of an anion exchanger, A-6. The substance was adsorbed onto Amberlite IRC-50 (H+), eluted with 0.5N HCl, and lyophilized at pH 7.0 yielding 150 g powder from 18 l. of culture medium. The powder was extracted with 50% EtOH. The extract was concentrated and treated with active C at pH 5. The filtrate was lyophilized at pH 7 yielding 115 g yellow powder. The active substance was adsorbed onto granular active C, eluted with 80% EtOH and dried under vacuum yielding 4 g white powder from 20 g yellow powder. The powder (4 g) was suspended in H2O-saturated BuOH submitted to cellulose column chromatog., yielding 1 g white powder. Antibiotic Number 5879 was crystallized from the powder by treatment with hot MeOH-Me2CO yielding 200 mg.

L8 ANSWER 12 OF 13 MEDLINE on STN

DUPLICATE 2

ACCESSION NUMBER: 74260438 MEDLINE Full-text

DOCUMENT NUMBER: PubMed ID: 4792062

TITLE: Antibiotic 5879 produced by *Streptomyces aizunensis*, identical with bicyclomycin.

AUTHOR: Miyamura S; Ogasawara N; Otsuka H; Niwayama S; Tanaka H

SOURCE: The Journal of antibiotics, (1973 Sep) Vol. 26, No. 9, pp. 479-84.

Journal code: 0151115. ISSN: 0021-8820.

PUB. COUNTRY: Japan

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 197408

ENTRY DATE: Entered STN: 10 Mar 1990

Last Updated on STN: 10 Mar 1990
Entered Medline: 23 Aug 1974

L8 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1973:33834 CAPLUS Full-text

DOCUMENT NUMBER: 78:33834

ORIGINAL REFERENCE NO.: 78:5289a,5292a

TITLE: Antibiotic Number 5879, a new water-soluble antibiotic
against gram-negative bacteria

AUTHOR(S): Miyamura, Sadao; Ogasawara, Nagahiro; Otsuka, Hitoshi;
Niwayama, Seihachiro; Tanaka, Hirosato; Take, Tsuneko;
Uchiyama, Takeo; Ochiai, Hiroshi; Abe, Kaoru; et al.

CORPORATE SOURCE: Antibiot. Res. Div., Niigata Univ., Niigata, Japan

SOURCE: Journal of Antibiotics (1972), 25(10), 610-12

CODEN: JANTAJ; ISSN: 0021-8820

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A water soluble antibiotic, effective against gram-neg. bacteria was obtained from the filtrate of
a culture growth of Streptomyces Number 5879 isolated from a soil sample collected in Aizu area.
S. Number 5879 resembles S. griseolus and S. griseoflavus. I.p. injection of 400 mg/kg to mice
did not exhibit any toxicity.

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